LONG TERM CARE LABORATORY 114 HOSPITAL 102 FACILITY 110 PHYSICIAN'S BROWSER OFFICE 106 BROWSER BROWSER BROWSER 112 104 108 116 **NETWORK 100 FIG. 1** PATIENT INFECTION INFORMATION AND SPECIES REPEAT SEQUENCE DATA 142 PATIENT MEDICAL HISTORY DATA 138 DNA REGION 1 SEQUENCE DATA 130 DNA REGION 2 SEQUENCE DATA 132 DNA REGION 3 SEQUENCE DATA 134 SPECIES/SUBSPECIES PROPERTIES AND VIRULENCE DATA 136 INFECTION CONTROL FACILITY 148 HEALTHCARE FACILITY DATA 144 DATA STORAGE DEVICE 126 **ROM 122** UPDATES DATA 140 **SEQUENCER 146 SERVER 118** DATABASE 128 **CPU 124 RAM 120**

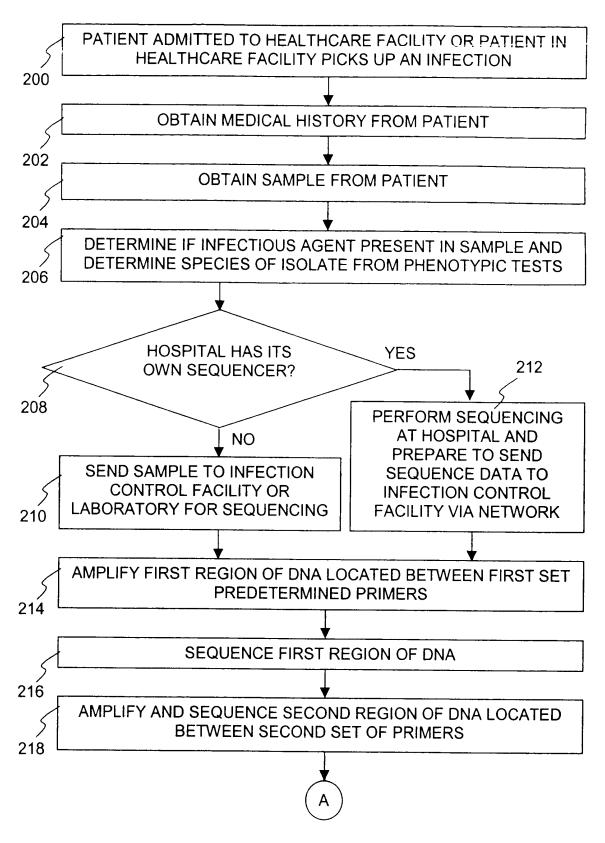


FIG. 2A

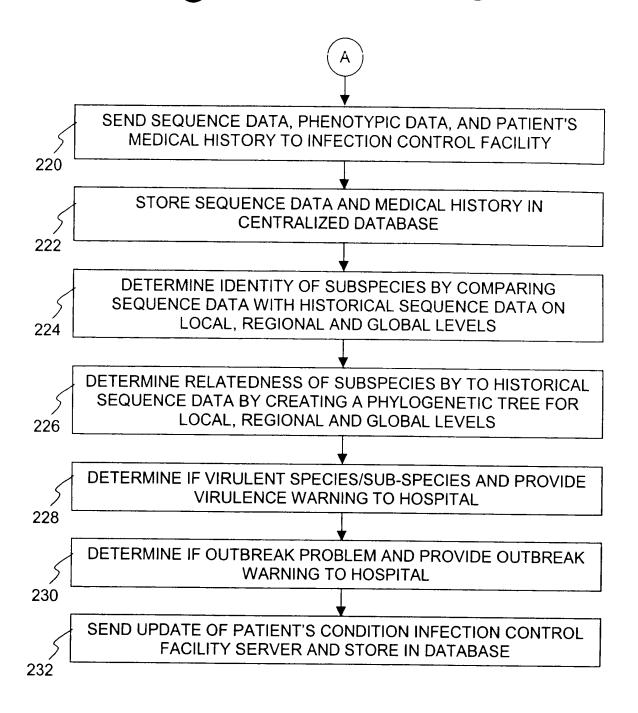


FIG. 2B

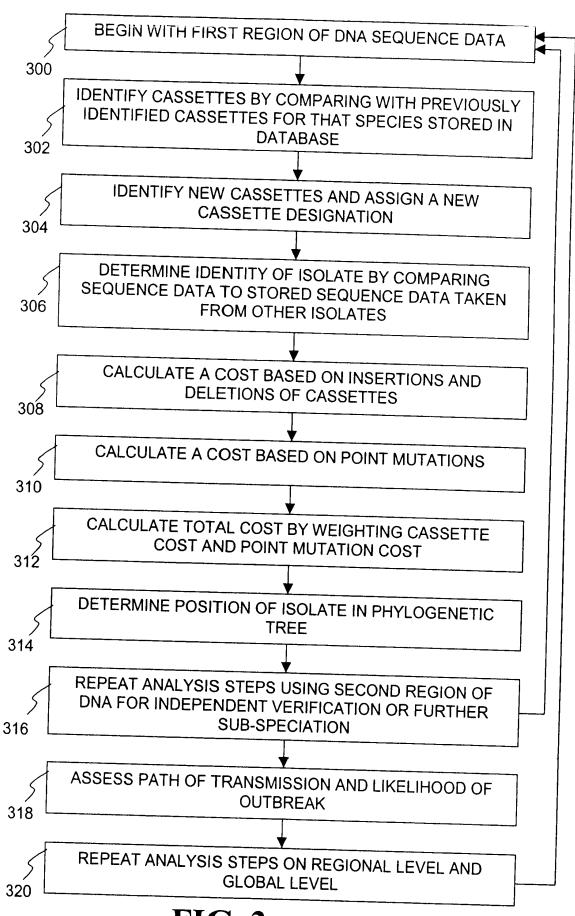


FIG. 3

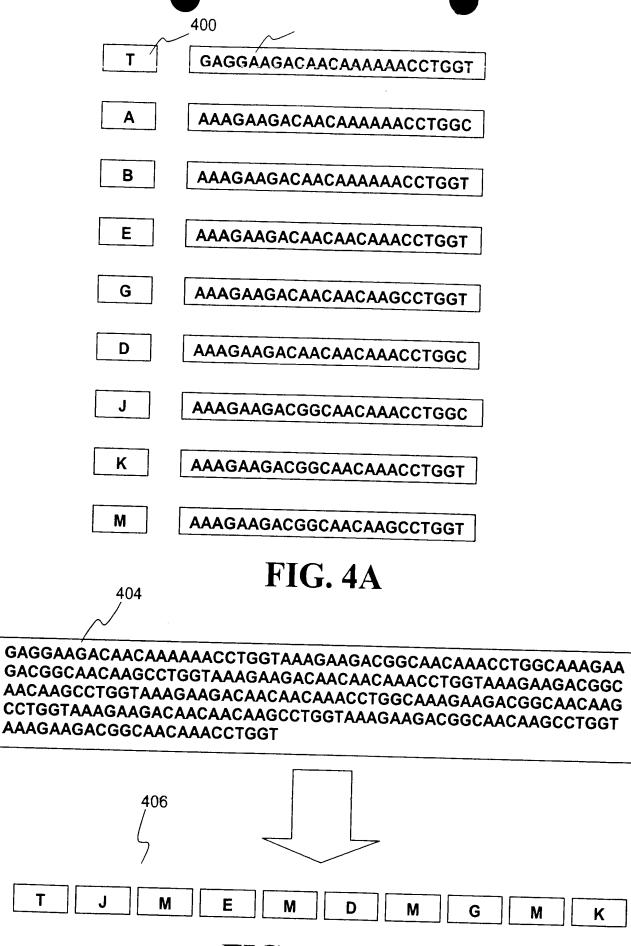


FIG. 4B

T

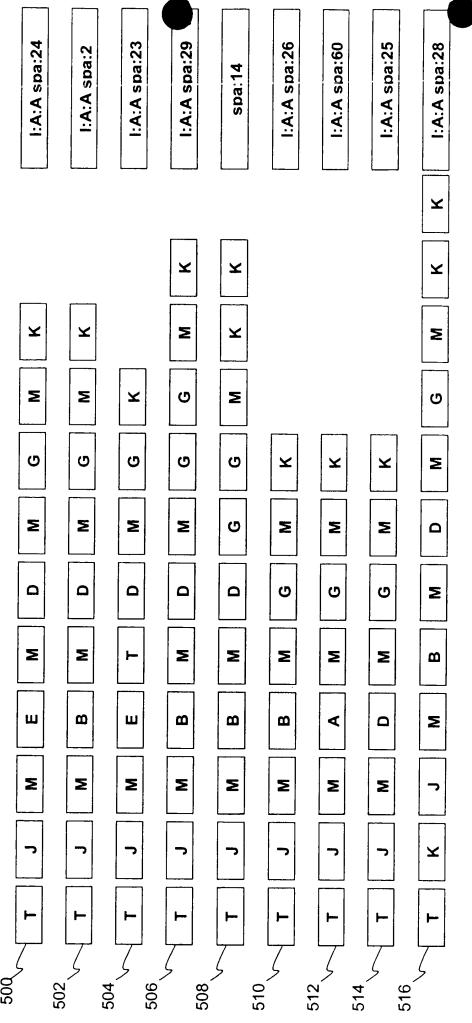


FIG. 5

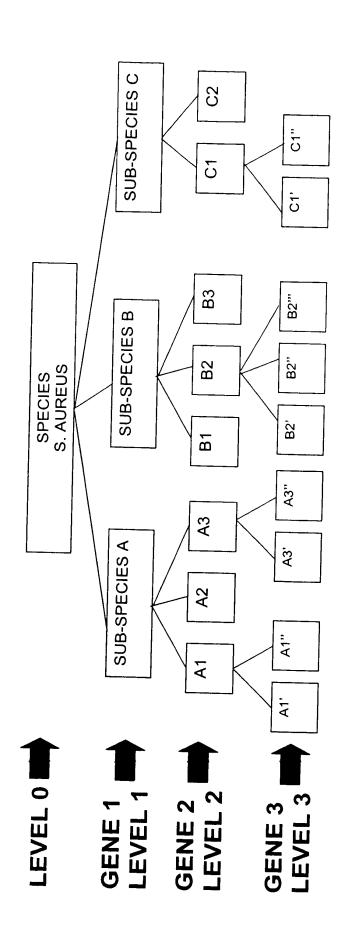


FIG. 6

SPECIES	S. aureus	S. aureus	
SUBSPECIES	A1'	B7"	
SEQ REGION 1	ATTCATAGAT		
SEQ REGION 2	CGTACTATCC		
SEQ REGION 3	ATTCGTTATA		
REGION 1 PRIMERS			
REGION 2 PRIMERS			
REGION 3 PRIMERS			
REPEATS REGION 1	TKJMP		
REPEATS REGION 2	ABABA		
REPEATS REGION 3	TYYT		
DATE	June 5, 2000		
PATIENT MEDICAL HISTORY	Hospitalized in New York Hospital, June 2000 for 3 weeks, heart surgery		
PATIENT MEDICAL UPDATE INFO	Patient hospitalized 3 weeks for infection and released	Patient died due to infection after two weeks	
LOCATION	Mt. Sinai Hospital, Toronto, Burn Ward	New York City Hospital, ICU	
PHAGE TTYPE			

FIG. 7A

	S. AU	IREUS	
SEQ REGION	REPEAT 1	REPEAT 2	REPEAT 3
PROTEIN A X _R	AATTCGCCTAGG	AATTCCCCTAGG	TAGGCCGT
REGION 2	TTAAAGGCCTGA	GGTTCCAATAAT	GGTTAACC
REGION 3	•		

FIG. 7B

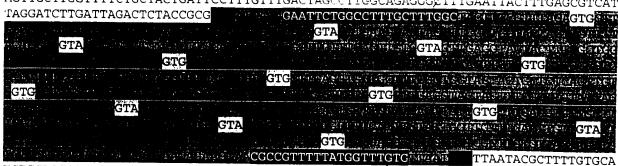


Fig. 8A

SEQ ID NO 38

SEQ ID NO. 23

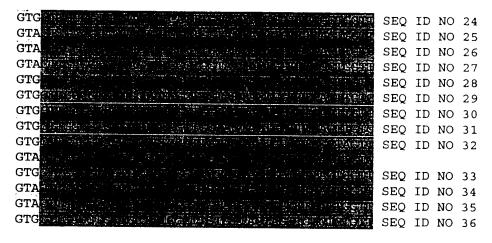


Fig. 8B

MTEFWPLLWLLSFT				
VLGVLLSLVLLVALV	SEQ	ID	NO	39
VLEALLSLVLLVLLV	SEQ	ID	NO	40
VLGVLLSFVLLVSLV	SEQ	ID	ИО	41
VLEVLLSLVLLVSLV	SEQ	ID	NO	42
VLGVLLSLVLLVSLV	SEQ	ID	NO	43
VLGVLLSLVLLVSLV				
VLEVLLSLVLLLSLV	SEQ	ID	ИО	44
VLGVLLSLVLLLSLV	SEQ	ID	NO	45
VLGVLLSLVLLVSLV				
VLGVLLSFVLLVSLV				
VLEVLLSLVLLVLLV	SEQ	ID	NO	46
VLGVLLSFVLLVSLV	SEQ	ID	NO	47
VLEVLLSLVLLVSLV				
VLEVLLSLVLLVVSV	SEQ	ID	ИО	48
DFSTNRSNAVFMVCVN				

Fig. 8C

ATGTTCCAGCCCCTATTAGACGCTTATACAGACAGCACCCGTTTAGATGAAACCGATTATAAGCCCCCCATTAAATAT AGCCCTAGCCAATTGGTGGCCTTTGGATAAAAGAGAAAGCAAAGGGTTTAGGCCTTTTATCTTGTATTTCATCTTAA GCCAACGCTACACAATCACCCTCCACCAAAACCCTAACGAACCCTCCGATCTTGTCTTTTGGCAGTCCTATTGGATCA GCCAGAAAAATCCTATCCTATCAAAACACTAAAAGGGTGTTTTACACCGGTGAAAATGAAGTCCCTAA†TTCAATCT CTTTGATTACGCCATAGGCTTTGATGAATTGGACTTTAGAGATCGTTATTTGAGAATGCCTTTATATTACGCTAGCT TGCATTATAAAGCCGAGAGCGTGAATGACACCACCGCGCCCTACAAACTCAAAGACAACAGCCTTTAT¢CTTTAAAA AAGCCCTCCCATCATTTTAAAGAAAACCACCCTAATTTATGCGCAGTAGTGAATGATGAGAGCGATCCTTTGAAAAG ${\tt AGGGTTTGCGAGCTTTGTCGCGAGCAACCCTAACGCTCCTATAAGGAACGCTTTCTATGACGCTTTAAATTCTATTG}$ AGCCAGTTACTGGGGGAGGGAGCGTGAAAAACACTTTAGGCTATAACGTCAAAAACAAGAGCGAGTTTTTAAGCCAA TACAAATTCAATCTGTGTTTTGAAAACACTCAAGGCTATGGCTATGTAACTGAAAAAATCATTGACGCTTATTTCAG CCACACCATTCCCATTTATTGGGGGAGTCCTAGCGTGGCGAAAGACTTTAACCCTAAGAGTTTTGTGAACGTTTGTG ATTTTAAAAACTTTGATGAAGCGATTGATTACGTGAGATACTTGCACACGCACCCAAACGCTTATTTAGACATGCTC TTTTAAAACGATTTTAGAAAACGACACGATCTATCACGATAACCCTTTCATTTCTATCGCGATTTGAATGAGCCTT TAGTAGCTATTGAT GAT GAT FATER REGISTRATION OF THE PROPERTY OF THE GAT CONTROL OF THE GAT THE PERSON GAT

Fig. 9A

SEQ ID NO 52

GAT
GAT
GAT
GAT
GAT
GAT
GAT
GAT

SEQ ID NO 50

SEQ ID NO 59

Fig. 9B



SEQ ID NO 53

Fig. 9C

SEO ID NO 78

PEPSPDPEPEPTPD

PEPSPDPEPEPSPD

PDP

Fig. 10D

AATAATGAGAATGTTGTACGTTATGGTGGTGGAAGTGCTGATGGTGATTCAGCAGTAAATCCGAAAGACCC

SEQ ID NO 76

SEQ ID NO 54

Fig. 10A

SEO ID NO 77

AATAATGAGAATGTTGTACGTTATGGTGGTGGAAGTGCTGATGGTGATTCAGCAGTAAATCCGAAAGACCC

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Hair of Manual Control	一个一个一个一个一个
GATTCGGATTCAGACAGT	CEO TO MO
GACTCAGGCTCAGACAGC	SEQ ID NO 55
GACTCAGGTTCAGATAGC	SEQ ID NO 56 SEO ID NO 57
GACTCAGAATCAGATAGC	070
GATTCGGATTCAGACAGT	SEQ ID NO 58
GATTCAGATTCAGACAGC	SEQ ID NO 59
GACTCAGAATCAGATAGC	220 10 10 33
GATTCAGAATCAGATAGC	SEQ ID NO 60
GACTCAGATTCAGATAGC	SEQ ID NO 61
GATTCAGATTCAGATAGC	SEQ ID NO 62
GAT TCAGATTCAGATAGC	~ 3 2
GATTCGGATTCAGACAGT	
GATTCAGATTCAGACAGC	
GACTCAGAATCAGATAGC	
GACTCAGAATCAGATAGT	SEQ ID NO 63
GAGTCAGATTCAGACAGT	SEQ ID NO 64
GACTCGGACTCAGACAGT	SEQ ID NO 65
GATTCAGACTCAGATAGC	SEQ ID NO 66
GATTCAGACTCAGATAGC	
GATTCAGATTCAGACAGC	
GACTCAGATTCAGACAGC	SEQ ID NO 67
GACTCAGACTCAGATAGC GACTCAGACTCAGACAGC	SEQ ID NO 68
GACTCAGACTCAGACAGC GACTCAGATTCAGATAGC	SEQ ID NO 69
GATTCAGACTCAGACAGC	GD0 75
GACTCAGACTCAGACAGC	SEQ ID NO 70
GACTCAGACTCAGATAGC	
GACTCAGATTCAGATAGC	
GATTCAGACTCAGACAGC	
GACTCAGATTCAGATAGC	
GATTCGGACTCAGACAGC	SEQ ID NO 71
GATTCAGATTCAGACAGC	15 NO /1
GACTCAGACTCGGATAGC	SEQ ID NO 72
GATTCAGATTCAGATAGC	~ == 1.0 , 2
GATTCGGATTCAGACAGT	
GATTCAGATTCAGACAGC	
GACTCAGACTCGGATAGC	
GACTCAGACTCAGACAGC	
GATTCAGACTCAGATAGC	
GACTCAGACTCGGATAGC	
GACTCGGATTCAGATAGC	SEQ ID NO 73
GACTCAGACTCAGATAGT	SEQ ID NO 74
GAC TCCGATTCAAGAGTT	SEQ ID NO 75
The state of the second second second second	GCACCATCA A ATCCTA A ACCC

ACACAAAACTGATGCTTTACCA

Repeat pattern isolate 1: 1-2-3-4-1-5-4-6-7-8-8-1-5-4-9-10-11-12-12-5-13-14-15-7-16-15-14-7-16-7-17 5 18 8 1-5-16-15-12-18-19-20-21

Fig. 10E

TCAGCAGTAAATCCGAAAGACCC<mark>AACTCCAGGGCCGCCGGTTGAC</mark> week and level water and the tend deprendent week in here GATTCGGATTCAGACAGT GACTCAGGCTCAGACAGC GACTCAGGTTCAGATAGC GACTCAGAATCAGATAGC GATTCGGATTCAGACAGT GATTCAGATTCAGACAGC GACTCAGAATCAGATAGC GATTCAGAATCAGATAGC GACTCAGATTCAGATAGC GATTCAGATTCAGATAGC GATTCAGAATCAGATAGC GATTCGGATTCAGACAGT **GATTCAGATTCAGACAGC** GACTCAGAATCAGATAGC GACTCAGAATCAGATAGT GAGTCAGATTCAGACAGT **GACTCGGACTCAGACAGT** GATTCAGACTCAGATAGC **GATTCAGACTCAGATAGC** GATTCAGACTCAGACAGC GATTCAGATTCAGACAGC GACTCAGAATCAGACAGC SEQ ID NO 79 GACTCAGACTCAGATAGC GACTCAGACTCAGACAGC GACTCAGATTCAGATAGC GATTCAGACTCAGACAGC GACTCAGACTCAGACAGC GACTCAGACTCAGATAGC GATTCAGACTCAGACAGC GACTCAGATTCAGATAGC GATTCGGACTCAGACAGC **GATTCAGATTCAGACAGC** GACTCAGACTCGGATAGC GATTCAGATTCAGACAGC GACTCAGACTCGGATAGC GACTCGGATTCAGATAGT SEQ ID NO 80 **GACTCCGATTCAAGAGTT**

Fig. 10C

Repeat pattern isolate 2: 1-2-3-4-1-5-4-6-7-8-6-1-5-4-9-10-11-12-12-16-5-22-14-15-7-16-15-14-16-7-17-5-18-5-18-23-21